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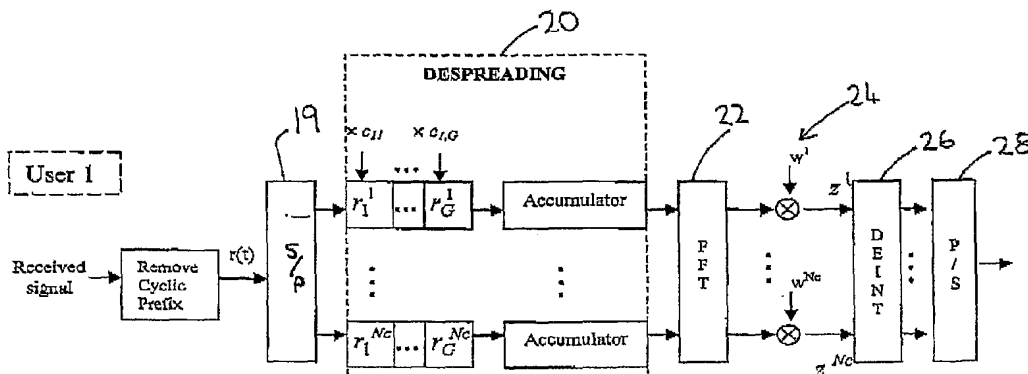
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[Continued on next page]

(54) Title: A VARIABLE SPREADING FACTOR-ORTHOGONAL FREQUENCY AND CODE DIVISION MULTIPLEXING (VSF-OFCDM) SYSTEM, A RECEIVER FOR USE THEREIN AND A METHOD OF PROCESSING RECEIVED SIGNALS IN SUCH A SYSTEM



A Pre-despreading receiver for VSF-OFCDM systems with time domain spreading

(57) Abstract: A variable spreading factor-orthogonal frequency and code division multiplexing (VSF-OFCDM) system and receiver for use therein has a sequence extension remover for removing a predetermined number of chips from the received signal to form a modified signal, and a first converter for converting the modified signal from a serial sequence to a parallel sequence. A despreader is coupled to the first converter for despreading the parallel sequence to derive a group of symbols. An orthogonal transform block, such as a Fast Fourier Transform block is coupled to the despreader to transform the symbols from the time domain to the frequency domain. An equalizer block is coupled to the transform block for equalizing the transformed signal to reduce channel distortion. A deinterleaver block is coupled to the equalizer block to form a deinterleaved signal. The deinterleaved signal is then converted from a parallel sequence to a serial sequence.



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